Department of Pesticide Regulation

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Environmental Justice Pilot Project
Pesticide Air Monitoring In Parlier
First Progress Report

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Summary

As part of the California Environmental Protection Agency's Environmental Justice Action Plan, the Department of Pesticide Regulation (DPR) is conducting a pilot project focusing on pesticide air concentrations in Parlier. Initially, DPR sought to answer three primary questions:

- Are residents of Parlier exposed to pesticides,
- If so, which pesticides and in what amounts, and
- Do measured levels exceed levels of concern to human health, particularly children.

The Local Advisory Group formed by DPR to advise the project added four additional goals:

- Tell the community about the project.
- Evaluate pesticide risk compared with other pollutants that are monitored.
- Reduce pesticide risk.
- Follow up on the findings. For example, DPR might provide education and technical support to farmers to encourage them to use alternatives that are less toxic or, if there are health concerns, DPR can put stricter controls on certain problematic uses.

This is the first in a series of progress reports describing the project status and includes preliminary monitoring results from January 1 to March 31, 2006. The results in this progress report are preliminary and subject to change after full analysis of quality control data. Data to ensure quality control is collected throughout the project, but will not be fully analyzed until air monitoring is finished in December 2006. Analysis of this data may result in modifications to information in this progress report.

DPR, with assistance from other agencies, is monitoring for pesticides as well as other pollutants. Most pesticide monitoring occurs three consecutive days each week at three elementary schools in Parlier: Martinez (northwest part of town), Benavidez (central), and Chavez (southeast). Monitoring began in January 2006 and will continue through December 2006.

Enforceable state or federal health standards have not been established for most pesticides in air. In these types of projects, DPR typically develops health screening levels for each pesticide to help determine when it may be prudent to evaluate potential health effects of chemical exposure. By itself, a screening level does not indicate the presence or absence of a hazard, but detections above a screening level point to a need for further evaluation.

In the first three months of monitoring, the key findings were:

- Of the 37 pesticides or breakdown products for which results were available, 11 of them were detected in one or more of the 242 samples collected and analyzed (117 samples for methyl isothiocyanate, 117 samples for 30 other pesticides, 8 samples for volatile organic compounds). An additional three pesticides were detected likely due to non-pesticidal sources.

- Only the volatile organic compound acrolein exceeded the health screening levels, but concentrations were similar to those typically found in other areas of the state. The acrolein detections were likely due to non-pesticidal sources.

- The pesticide with the highest concentration was xylene (4,200 nanograms per cubic meter, [0.99 parts per billion, ppb], below the screening level of 900,000 nanograms per cubic meter [200 ppb]). However, non-pesticidal sources such as gasoline, paints, and cleaners may account for most of the detected xylene concentrations.

- The chemical with the highest concentration that likely resulted from pesticide use was 1,3-dichloropropene (1,640 nanograms per cubic meter [0.37 ppb] detected, screening level 160,000 nanograms per cubic meter [36 ppb]).

- Diazinon was the pesticide with a concentration closest to its screening level. A single sample contained 98 nanograms per cubic meter [0.0080 ppb], which is 75 percent of the diazinon screening level for acute exposure. Remaining samples were lower.

- DPR detected chlorpyrifos most frequently (100 percent of 117 samples). The highest chlorpyrifos concentration detected was 150 nanograms per cubic meter [0.011 ppb], 12 percent of the screening level.

- As many as 8 pesticides or breakdown products were detected on a given day and location (three additional pesticides were likely due to non-pesticidal sources). Eighty-two percent of the 117 locations and days monitored (3 locations x 39 days) had detectable concentrations of more than one pesticide.

Contents

Summary	1
Introduction	5
Pesticides and Other Pollutants Monitored	5
Area Monitored	6
Methods	6
Preliminary Results and Discussion	7
Tables	
1. Highest concentrations detected for each pesticide monitored	11
2. Percent of samples with detectable pesticide concentrations and preliminary reported use in Parlier area	12
3. Reported use of pesticides included in the monitoring and applied within five miles of Parlier, by month, for 2004	13
4. Highest volatile organic compound (VOC) concentrations, January and February 2006	14
Figures	
1. Locations of monitoring stations and the population densities in Parlier	15
2. Highest one-day concentrations for each day monitored	16
3. Highest two-week average concentrations detected	17
4. Air concentrations by location, as of March 31, 2006	18
5. Concentrations of criteria air pollutants, January 2006	19
6. Windrose showing percentage of time for each wind direction	20
Appendix: Results for each sample	
Raw data for DPR MITC samples	22
Raw data for DPR multiple pesticide samples	26
Data for ARB VOC samples	31

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Introduction

Environmental Justice Action Plan*: DPR's pilot project is one of several being conducted throughout the state. Different pilot projects focus on different geographic areas and/or media. All pilot projects include common elements to address children's environmental heath, cumulative impacts, precautionary approaches, and public participation.*

As part of the California Environmental Protection Agency's Environmental Justice Action Plan, the Department of Pesticide Regulation (DPR) is conducting a pilot project focusing on pesticide air concentrations in Parlier. Parlier is a small agricultural community located in California's San Joaquin Valley, approximately 20 miles southeast of Fresno. Fruit orchards and grape vineyards are the predominant crops in the area.

This project focuses on monitoring ambient air concentrations of pesticides. The data gathered will help DPR evaluate exposure to pesticides in order to better understand and identify opportunities to reduce environmental health risk, particularly to children. This project includes additional elements to address definitions of and guidance for cumulative impacts, precautionary approaches, and public participation.

Local Advisory Group (LAG) and Technical Advisory Group (TAG)*: The LAG includes representatives of community organizations, local businesses, a local health care provider, and growers. The TAG is composed of scientific staff from government agencies, university researchers, and technical specialists from the area. Both were formed specifically for this project.*

With assistance from the Local Advisory Group and Technical Advisory Group, DPR established seven key objectives for the project: 1) Are residents of Parlier exposed to pesticides. 2) If so, which pesticides and in what amounts. 3) Do measured levels exceed levels of concern to human health, particularly children. 4) Tell the community about the project. 5) Evaluate pesticide risk compared with other pollutants that are monitored. 6) Reduce pesticide risk. 7) Follow up on the findings. For example, DPR might provide education and technical support to farmers to encourage them to use alternatives that are less toxic or, if there are health concerns, DPR can put stricter controls on certain problematic uses.

This is the first in a series of progress reports describing the project status, focusing on interim monitoring results for the first three objectives.

Pesticides and Other Pollutants Monitored

Breakdown Products*: Over time, pesticides degrade to other chemicals, or breakdown products.* ***Oxygen analogs*** *(OAs) are breakdown products of* ***organophosphate*** *insecticides. Unlike most breakdown products, the oxygen analogs are usually more toxic than the parent organophosphate.*

Air monitoring is being conducted for 40 pesticides (including five breakdown products). DPR selected the pesticides for monitoring based on their toxicity, volatility, extent of use in the area, their ability to be included in a multi-residue method, and the availability of resources for sample collection and analysis. Twenty of the 40 pesticides being monitored were among the top 100 used within five miles of Parlier during 2003. The remaining pesticides were included in the multi-pesticide monitoring method because they

could be added without extra cost and many have high use in other areas of the state, where the method may be used at a future date.

To collect data that can help address cumulative exposure, the Air Resources Board (ARB) is monitoring for particulate matter (2.5 micron size), volatile organic compounds (VOCs), and metal/elements. The San Joaquin Valley Air Pollution Control District (SJVAPCD) monitors in Parlier for other common air pollutants (ozone, nitrogen dioxide) on a routine basis. DPR is doing most of the pesticide monitoring, but ARB is monitoring for a few pesticides because they are included in their methods for VOCs and metals/elements. DPR is also doing limited monitoring for pesticides and other pollutants in Parlier drinking water.

Volatile organic compounds (VOCs)*: VOCs are hydrocarbons that evaporate into the air easily. Most VOCs contribute to the formation of ozone. The VOCs included in ARB's monitoring are also toxic chemicals.*

Area Monitored

For this project, air monitoring is being done at three elementary schools in Parlier (Figure 1): Martinez (northwest part of town), Benavidez (central), and Chavez (southeast). In addition, SJVAPCD routinely monitors for other air pollutants at the University of California, Kearney Agricultural Center, approximately one mile southeast of town.

Methods

Monitoring Plan – DPR, ARB, and SJVAPCD have different monitoring plans. DPR monitors 31 pesticides and breakdown products by collecting 24-hour samples, three consecutive days a week at each of the three schools, for 52 weeks during 2006. DPR also conducts limited pesticide monitoring of Parlier drinking water. The California Department of Food and Agriculture performs the laboratory analysis of DPR's samples.

ARB monitors for 23 VOCs (including six pesticides) and 33 metals/elements (including three pesticides) by collecting and analyzing 24-hour samples every six days at Benavidez School. The sampling frequency increases to every three days during the peak use months for 1,3-dichloropropene and sulfur. ARB monitors particulate matter on a continuous basis at Benavidez.

SJVAPCD monitors ozone, and nitrogen dioxide on a continuous basis, and hydrocarbons during the summer at the Kearney Agricultural Center.

A detailed protocol for all of the monitoring is available at http://www.cdpr.ca.gov/docs/envjust/pilot_proj/index.htm.

***Method Detection Limit**: The method detection limit is the smallest amount of the chemical that can be identified in a sample with the method employed. If the sample contains no chemical, or may have a concentration less than the detection limit, the sample is designated as having **no detectable concentration (nd)**. When calculating average concentrations, DPR usually assumes that samples with no detectable amount have a concentration of one-half the detection limit.*

***Estimated Quantitation Limit**: The estimated quantitation limit is the smallest amount of the chemical that can be measured. Samples with concentrations less than the quantitation limit, but more than detection limit are designated as containing a **trace** amount, but the concentration cannot be measured reliably. When calculating average concentrations, DPR usually assumes that samples with a trace amount have a concentration of the mid-point between the detection and quantitation limits.*

***Screening Level**: Enforceable state or federal health standards have not been established for most pesticides in air. In these types of projects, DPR typically develops health screening levels for each pesticide to help determine when it may be prudent to evaluate potential health effects of chemical exposure. By itself, a screening level does not indicate the presence or absence of a hazard, but detections above a screening level point to a need for further evaluation.*

Quality Control Methods – The monitoring includes extensive quality control measures to validate the methods before and check the methods' performance during the study. DPR's method validation verified that the lowest possible detection limits and quantitation limits were achieved and ensured that the detection limits were lower than the health screening levels. DPR's quality control measures include analyses of samples containing known amounts of pesticides (spikes) to determine accuracy, samples containing no pesticides (blanks) to detect inadvertent contamination, and duplicate samples to determine precision. ARB's validation and quality control measures are different, but similar to DPR's. In addition, a multi-agency group conducts audits of DPR and ARB to ensure appropriate procedures are followed.

Methods for Collecting Weather and Pesticide Use Data – Weather and pesticide use information are collected to help evaluate the monitoring data. Weather stations are located at the Benavidez and Kearney monitoring sites, and measure wind speed, wind direction, temperature, and humidity. DPR maintains a database of all reported agricultural pesticide applications, including date applied, amount applied, and application location.

Health Evaluation Methods – DPR, with the assistance of Cal/EPA's Office of Environmental Health Hazard Assessment (OEHHA), evaluates monitoring data for potential health risks from exposure to pesticides. The health risks are evaluated using screening levels established from toxicological data. Different exposure time periods have different screening levels. Acute (short-term) screening levels address exposures for one day. Subchronic (intermediate-term) screening levels address exposures for two weeks duration. Chronic (long-term) screening levels address exposures for one year.

OEHHA is leading the effort to estimate the risk from the cumulative exposure to multiple pollutants. Evaluation of cumulative health risk will not be done until the air monitoring is completed in December 2006, and results have been fully analyzed.

Preliminary Results and Discussion

This progress report describes preliminary monitoring results for the following periods:

- DPR: January 1 to March 31, 2006
- ARB: January 15 to February 28, 2006 (no data for January 1 – 14)
- SJVAPCD: January 1 to January 31, 2006

The results for this progress report are preliminary and subject to change until DPR completes the analysis of all quality control data at the end of the project. DPR may consider two of its samples collected so far as invalid due to differences between the starting and ending sampler air flow rates. However, these samples are included in the results described here. Appendix 1 shows the results for each sample. DPR has also not conducted the normal quality control checks of the 2006 pesticide use reports; these data are also preliminary and subject to change.

***Number of samples**: For each day and location monitored, two or four individual samples are collected for one or more pesticides. DPR collects one sample for MITC and one sample for 30 other pesticides and breakdown products three consecutive days each week. ARB collects one VOC sample that includes six pesticides and one metal/element sample that includes three pesticides every six days.*

***Concentration and Units**: The concentration is the amount of a chemical in an amount of air. Concentrations in air can be expressed in units of volume or weight. For this study, concentrations are expressed as **nanograms per cubic meter (ng/m³)**. This unit refers to the weight in nanograms of a pesticide contained in one cubic meter of air. A nanogram is one-billionth of a gram. One grain of salt weighs approximately 60,000 nanograms.*

*Some concentrations are provided in **parts per billion (ppb).** However, this unit is potentially misleading. The conversion from ng/m^3 to ppb is different for each chemical because it depends on the mass of the chemical molecule (i.e. 1 ppb of chlorpyrifos is a different amount of mass than 1 ppb of diazinon). This makes the relative comparison of chemical concentrations in parts per billion difficult and potentially misleading.*

Pesticide Air Monitoring – Of the 37 pesticides or breakdown products for which results were available, 11 of them were detected in one or more of the 242 samples collected and analyzed (117 samples for MITC, 117 samples for 30 other pesticides, 8 samples for VOCs; Table 1). An additional three pesticides were detected, but have little or no use in the Parlier area and were likely detected due to non-pesticidal sources. None of the pesticide air concentrations detected exceeded the screening levels for the acute (one-day) or subchronic (two-week) exposure periods. (Acrolein exceeded the screening level due to non-pesticidal use. See the *Other Pollutants and Weather Data* section). Xylene had the highest concentration (4,200 ng/m^3 [0.99 ppb]). However, non-pesticidal sources such as gasoline, paints, and cleaners may account for most of the xylene detected. The chemical with the highest concentration that likely resulted from pesticide use was 1,3-dichloropropene (1,640 ng/m^3 [0.37 ppb]). Diazinon had the concentration closest to the screening level for an individual pesticide (75 percent of screening level for acute exposure). Table 2 shows that DPR detected chlorpyrifos most frequently (100 percent of 117 samples).

Chlorpyrifos, diazinon, and MITC had the greatest number of samples with quantifiable concentrations. Figures 2 and 3 show concentrations of these three pesticides over time. Figure 2 shows the highest one-day concentrations (among the three monitoring locations). Figure 3 shows the highest two-week concentrations (among the three monitoring locations). Chlorpyrifos concentrations were more consistent over time, while the diazinon and MITC concentrations were more variable. The remaining pesticides currently have insufficient data to show any patterns over time.

Figure 4 shows the results by location. Air concentrations were approximately the same for Martinez (northwest), Benavidez (central), and Chavez (southeast), except for the single relatively high diazinon sample detected at Benavidez.

Descriptions of pesticides with quantifiable concentrations

1,3-dichloropropene *(Telone, Inline); soil fumigant; agricultural uses.*

Acrolein *(Magnacide); aquatic herbicide; used in irrigation canals; non-pesticidal sources include engine exhaust, tobacco smoke, and chemical manufacturing.*

Carbon disulfide *(Enzone); soil fumigant; agricultural uses; non-pesticidal sources include industrial processes and natural products.*

Chlorpyrifos *(Dursban, Lorsban) organophosphate insecticide, oxygen analog analyzed; agricultural and limited residential uses.*

Diazinon *(several products) organophosphate insecticide, oxygen analog analyzed; agricultural and limited residential uses.*

Formaldehyde *(Aldesan, Bactron); disinfectant; used in poultry houses; non-pesticidal sources include vehicle exhaust, composite wood products, glues, and tobacco smoke.*

Methyl bromide *(Bromogas, MBR, Metabrom, Tri-Con); fumigant; agricultural uses.*

Methyl isothiocyanate, MITC *(metam-sodium, metam-potassium, Vapam, Sectagon); fumigant; breakdown product of other pesticides such as metam-sodium; agricultural uses.*

Xylene *(several products); volatile organic compound and solvent; used as an active and inert ingredient in pesticide products; non-pesticidal sources include fuels, paints, cleaners, and other products.*

As many as 8 of the 37 pesticides and breakdown products being monitored were detected on a given day and location. Three additional pesticides were likely detected due to non-pesticidal sources. Eighty-two percent of the 117 locations and days monitored (3 locations x 39 days) had detectable concentrations of more than one pesticide.

Pesticide Use – Table 2 shows the preliminary data reported for the number of pesticide applications and the total amounts applied for January – March 2006, within five miles of Parlier. A few pesticides monitored are used in residential areas; many of these applications are not reported. The frequency of detections and magnitude of concentrations roughly corresponded to the patterns of reported use. Based on the preliminary pesticide use data for 2006, all detected pesticides had reported use, except methyl bromide. Acrolein, carbon disulfide, and formaldehyde were also detected and had no reported use, but these compounds have major non-pesticidal sources that likely account for their detection. Most pesticides not detected had no use. Some pesticides were used, but not detected (oryzalin, oxyfluorfen, norflurazon, diuron). However, DPR has not determined the location and dates of these applications relative to the monitoring. In addition, these pesticides have low volatility. Table 3 shows monthly pesticide use for 2004 (the most recent year with finalized data), and indicates that use peaked in January – March for many of the pesticides detected, including chlorothalonil, chlorpyrifos, MITC (metam-sodium), simazine, and trifluralin. Use in the first three months of 2004 and 2006 appeared comparable for most pesticides.

Pesticide Water Monitoring – Three municipal wells currently provide all of the drinking water for Parlier. DPR's samples from these wells contained no detectable concentrations of eight pesticides and four breakdown products found in ground water in other areas (atrazine, bromacil, diuron, hexazinone, metribuzin, norflurazon, prometon, simazine, desmethyl norflurazon, deethyl atrazine, deisopropyl atrazine, and diamino chlorotriazine).

Quality Control – DPR's quality control data for its pesticide air samples were within the normal range. None of the blank samples contained detectable concentrations, indicating inadvertent contamination did not occur. Recoveries from spiked samples were acceptable, ranging from 70 to 120 percent. Duplicate sample results for the quantifiable MITC samples ranged from 4.7 to 8.2 relative percent difference. There were insufficient quantifiable concentrations for the duplicate multiple residue samples to determine precision. ARB's quality control data were not available.

Other Pollutants and Weather Data – Table 4 shows the highest VOC concentrations detected in Parlier, as well as a comparison to concentrations detected at ARB's monitoring station in Fresno during January and February 2006. Nineteen of the 23 VOCs monitored were detected in Parlier. Acetone, at 20,700 ng/m^3 [8.9 ppb], had the highest concentration detected. Acrolein was the only VOC that exceeded the health screening level. The highest concentration of acrolein measured in Parlier was 2,690 ng/m^3 [0.91 ppb], similar to concentrations detected in Fresno and other areas of the state. The acute screening level is 190 ng/m^3 [0.06 ppb], protective of the potential health effect of mild eye irritation. Acrolein is used as an aquatic herbicide in large irrigation canals. There are likely no such canals in the Parlier area, and there was no reported use of acrolein during January – March 2006 within five miles of Parlier. Major sources of acrolein include engine exhaust and tobacco smoke. Carbon disulfide and formaldehyde also have some pesticidal uses, but the concentrations detected in Parlier were likely due to non-pesticidal sources. Carbon disulfide is a natural product and is used in industrial processes. Formaldehyde is found in vehicle exhaust, composite wood products (e.g., plywood and particleboard), glues, and tobacco smoke.

***Criteria air pollutants**: Common air pollutants for which health standard criteria have been established. Exceedance of the health standard criteria triggers regulatory actions to reduce concentrations. Criteria air pollutants monitored in Parlier include ozone, nitrogen dioxide, and particulate matter. Ozone and particulate matter frequently exceed the health standards in the San Joaquin Valley. ARB and SJVAPCD lead the development and implementation of regulatory measures to meet the health standards.*

Figure 5 shows concentrations of the criteria air pollutants ozone and nitrogen dioxide at the SJVAPCD Kearney Agricultural Center monitoring station during January 2006. These pollutants are monitored on a continuous basis. The highest concentration for both ozone and nitrogen dioxide was 71,000 ng/m^3 [36 ppb ozone, 38 ppb nitrogen dioxide]. During January 2006, the state air quality standards for ozone (137,000 ng/m^3 [70 ppb], 8-hour average concentration) and nitrogen dioxide (470,000 ng/m^3 [250 ppb], 1-hour average concentration) were not exceeded. Concentrations were similar to previous years, when January peak concentrations for both ozone and nitrogen dioxide were 65,000 – 78,000 ng/m^3 in 2004 and 2005. Concentrations for both pollutants show the normal diurnal pattern of higher concentrations during the day and lower concentrations at night.

Weather data from the SJVAPCD monitoring stations showed the typical conditions for January. The average temperature was 47º F, with a high of 65º F and low of 31º F. Figure 6 shows that winds were variable, with an average speed of four miles per hour, and no predominant direction.

ARB's data for particulate matter and metal/elements were not available and will be included in the next progress report.

Table 1. Highest concentrations detected for each of the pesticides monitored.

Pesticide	Quantitation Limit (ng/m^3)	Highest 1-Day Concentration (ng/m^3)	Acute Screening Level (ng/m^3)
1,3-dichloropropene	454	1,640	160,000
Acrolein[a]	670	2,690	190
Carbon disulfide[a]	310	1,950	1,550,000
Chlorpyrifos	46.3	150	1,200
Diazinon	11.6	98	130
Formaldehyde[a]	120	3,840	19,000
Methyl bromide	116	950	820,000
MITC	23.2	394	66,000
Xylene[b]	850	4,200	900,000
Chlorothalonil	92.6	Trace	34,000
Chlorpyrifos oxygen analog	11.6	Trace	1,200
Diazinon oxygen analog	11.6	Trace	130
Simazine	11.6	Trace	110,000
Trifluralin	23.2	Trace	1,200,000
Azinphos-methyl	23.2	Not detected	101,000
Cypermethrin	46.3	Not detected	40,000
Dichlorvos	46.3	Not detected	160,000
Dicofol	46.3	Not detected	11,000
Dimethoate	11.6	Not detected	34,000
Dimethoate oxygen analog	11.6	Not detected	34,000
Diuron	23.2	Not detected	170,000
Endosulfan	46.3	Not detected	4,000
Endosulfan sulfate	46.3	Not detected	4,000
EPTC	11.6	Not detected	230,000
Malathion	11.6	Not detected	40,000
Malathion oxygen analog	11.6	Not detected	40,000
Metolachlor	11.6	Not detected	85,000
Molinate	11.6	Not detected	200,000
Norflurazon	11.6	Not detected	170,000
Oryzalin	11.6	Not detected	420,000
Oxyfluorfen	46.3	Not detected	510,000
Permethrin	46.3	Not detected	168,000
Phosmet	23.2	Not detected	77,000
Propanil	11.6	Not detected	51,000
Propargite	46.3	Not detected	14,000
SSS-tributylphos… (DEF)	11.6	Not detected	8,800
Thiobencarb	11.6	Not detected	425,000
Arsenic[a]	668	Not available	30
Copper[b]	393	Not available	100,000
Sulfur[b]	1,600	Not available	Not determined

[a] Detections of these compounds are likely due to non-pesticidal sources only.

[b] Detections of these compounds are likely due to both pesticidal and non-pesticidal sources.

Table 2. Percent of samples with detectable pesticide concentrations and preliminary reported use (within five miles of Parlier).

Pesticide	Number of Samples Collected	Percent of Samples with Detection [a]	Reported Use Jan-Mar 2006 (pounds)	Number of Reported Applications Jan-Mar 2006
Chlorpyrifos	117	100	12,473	518
Carbon disulfide[b]	8	100	0	0
MITC (metam-sodium)	117	90	6,159	4
Formaldehyde[b]	8	88	0	0
Acrolein[b]	8	75	0	0
Xylene[c]	8	75	10	2
Methyl bromide	8	63	0	0
Diazinon	117	50	809	65
Chlorpyrifos OA	117	36	----	----
Chlorothalonil	117	23	2,566	65
Simazine	117	22	4,493	411
Trifluralin	117	19	27	1
1,3-dichloropropene	8	12	8,566	5
Diazinon OA	117	9	----	----
Diuron	117	0	819	58
Norflurazon	117	0	897	136
Oryzalin	117	0	4,934	294
Oxyfluorfen	117	0	3,167	713
Azinphos-methyl	117	0	0	0
Cypermethrin	117	0	0	0
DDVP	117	0	0	0
DEF	117	0	0	0
Dicofol	117	0	0	0
Dimethoate	117	0	0	0
Dimethoate OA	117	0	0	0
Endosulfan	117	0	0	0
Endosulfan Sulfate	117	0	----	----
EPTC	117	0	0	0
Malathion	117	0	0	0
Malathion OA	117	0	----	----
Metolachlor	117	0	0	0
Molinate	117	0	0	0
Permethrin	117	0	0	0
Phosmet	117	0	0	0
Propanil	117	0	0	0
Propargite	117	0	0	0
Thiobencarb	117	0	0	0
Arsenic[b]	---	Not available	0	0
Copper[c]	---	Not available	46,171	671
Sulfur[c]	---	Not available	6,135	109

[a] Includes quantified detections and trace detections.

[b] Detections of these compounds are likely due to non-pesticidal sources only.

[c] Detections of these compounds are likely due pesticidal and non-pesticidal sources.

Table 3. Reported use of pesticides included in the monitoring and applied within five miles of Parlier, by month for 2004. The highest monthly usage (pounds) for each pesticide is shown in bold. Pesticides not shown had no reported use within five miles of Parlier during 2004, including acrolein, carbon disulfide, and formaldehyde.

Pesticide	Amount Reported for 2004 (pounds)												
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
1,3-DICHLOROPROPENE	17,797	2,655	27,433	13,709	0	0	0	0	30,709	50,473	**77,370**	4,457	224,603
AZINPHOS-METHYL	0	0	0	44	**249**	26	18	0	0	0	0	0	337
CHLOROTHALONIL	61	96	**1,100**	16	0	0	0	0	0	0	0	0	1,274
CHLORPYRIFOS	**12,782**	3,602	2,991	51	366	311	1,206	75	3,076	420	60	1,681	26,620
COPPER	**45,509**	15,563	8,477	5,158	379	1,336	894	1,666	284	1,993	3,385	5,688	90,333
DIAZINON	420	138	86	67	583	**985**	492	29	90	0	0	202	3,092
DICOFOL	0	0	0	0	0	0	**28**	0	0	0	0	0	28
DIMETHOATE	0	0	0	**96**	24	0	8	0	0	0	0	0	128
DIURON	33	378	**1,398**	130	0	0	0	0	0	61	163	0	2,165
ENDOSULFAN	0	0	0	0	0	0	1	**330**	6	0	0	0	336
MALATHION	0	0	**1**	0	0	0	0	0	0	0	0	0	1
METAM-SODIUM	**20,320**	6,350	0	0	0	0	0	0	0	0	0	0	26,670
METHYL BROMIDE	848	0	0	0	0	0	2,345	191	0	0	**20,368**	0	23,753
NORFLURAZON	614	**648**	293	0	0	0	0	0	0	0	0	139	1,694
ORYZALIN	1,025	**2,614**	644	17	0	19	0	2	0	187	278	468	5,253
OXYFLUORFEN	1,171	**2,771**	224	47	0	2	0	24	31	275	279	264	5,087
PERMETHRIN	34	0	0	0	**17**	3	6	1	0	2	0	0	64
PHOSMET	126	56	5	**17,528**	12,982	4,625	1,485	146	13	0	0	0	36,965
PROPARGITE	0	0	22	62	856	**2,835**	2,610	97	0	0	0	0	6,481
SIMAZINE	2,707	**6,116**	3,213	748	7	0	0	0	27	16	152	210	13,196
SULFUR	0	3,909	102,333	**332,500**	282,907	183,377	23,206	3,251	1,494	144	0	0	933,120
TRIFLURALIN	**55**	23	35	0	0	3	11	0	0	0	0	0	127
XYLENE[a]	11	0	0	0	0	0	16	0	0	0	0	**166**	193
Total	103,515	44,920	148,254	370,173	298,370	193,522	32,327	5,810	35,728	53,572	102,055	13,274	1,401,520

[a] Use shown for xylene is as an active, not inert, ingredient.

Table 4. Highest volatile organic compound (VOC) concentrations detected at Benavidez, January and February 2006. VOCs that were likely detected due to pesticide use in the Parlier area are shown in bold. VOCs that have some pesticidal use, but not in the Parlier area are shown in italics. Concentrations detected at ARB's monitoring station in Fresno are shown for comparison.

Volatile Organic Compound	**Quantitation Limit (ng/m^3)**	**Highest 1-Day Concentration in Parlier (ng/m^3)**	**Highest 1-Day Concentration in Fresno (ng/m^3)**	**Acute Screening Level (ng/m^3)[a]**
1,3-Butadiene	87	370	450	Not available
1,3-Dichloropropene	**440**	**1,640**	**Not detected**	**160,000**
Acetaldehyde	180	3,880	3,170	Not available
Acetone	700	20,700	9,060	Not available
Acetonitrile	490	7,880	1,810	Not available
Acrolein	*670*	*2,690*	*1,050*	*190*
Acrylonitrile	640	930	Not detected	Not available
Benzene	160	1,780	2,380	13,000,000
Carbon disulfide	*310*	*1,950*	*2,070*	*1,550,000*
Carbon tetrachloride	120	860	920	19,000,000
Chloroform	96	96	140	1,500,000
Dichlorobenzene	1,760	Not detected	Not detected	Not available
Ethyl benzene	850	Not detected	Not detected	Not available
Formaldehyde	*120*	*3,840*	*3,240*	*19,000*
Methyl bromide	**116**	**950**	**190**	**820,000**
Methyl chloroform	50	110	110	Not available
Methyl ethyl ketone	290	580	870	130,000,000
Methylene chloride	340	650	750	140,000,000
Perchloroethylene	66	200	200	200,000,000
Styrene	420	Not detected	Not detected	210,000,000
Toluene	740	4,800	5,160	370,000,000
Trichloroethylene	110	Not detected	Not detected	Not available
Xylene[b]	**850**	**4,200**	**4,250**	**900,000**

[a] Reference exposure levels determined by OEHHA are the acute screening levels used for VOCs.

[b] Non-pesticidal sources may contribute to the detection of xylene.

Figure 1. Locations of monitoring stations and the population densities in Parlier.

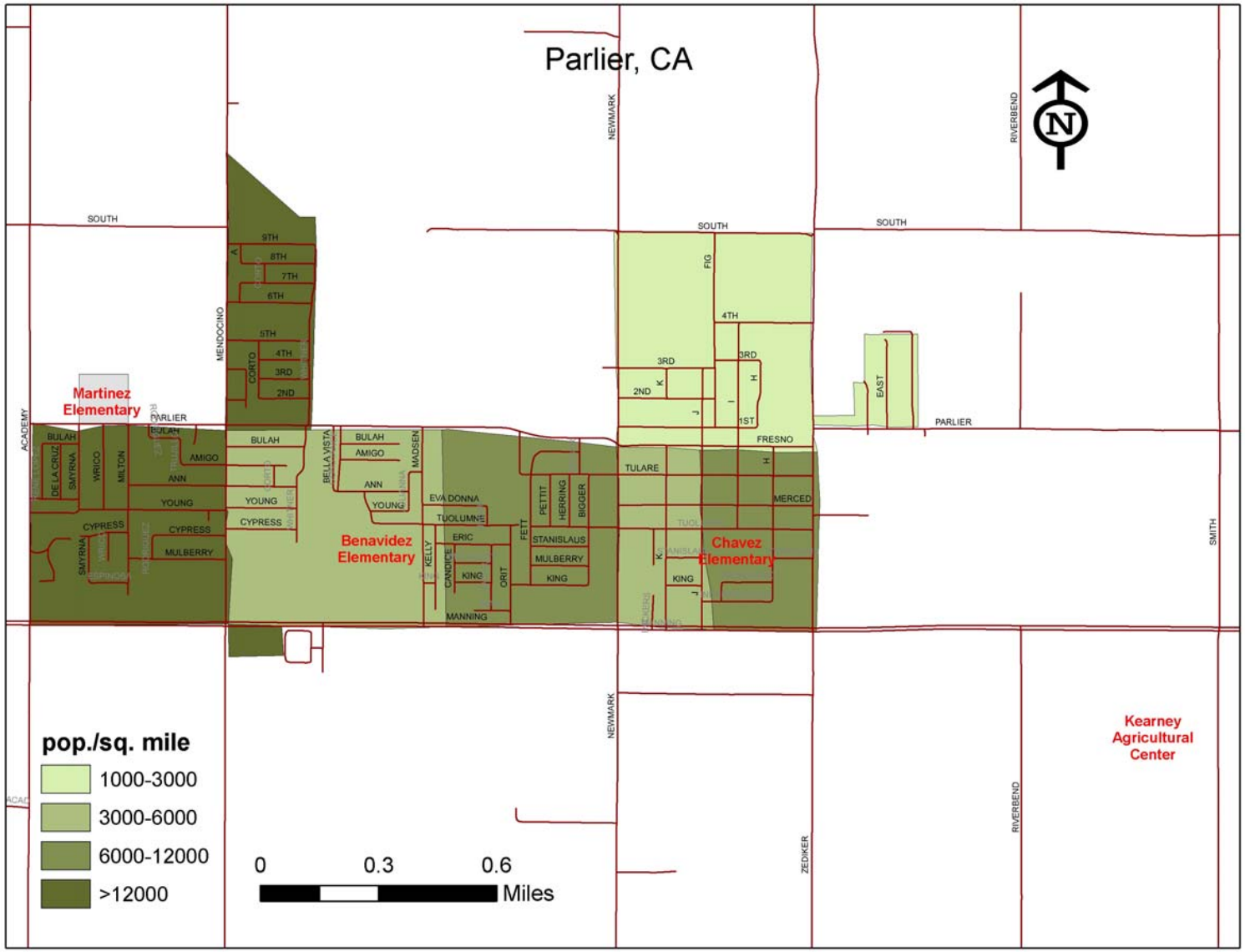


Figure 2. Highest one-day (acute) concentrations detected for each day monitored. Three locations were monitored on three consecutive days each week. Each bar shows the highest concentration for that day among the three monitoring locations, as of March 31, 2006.

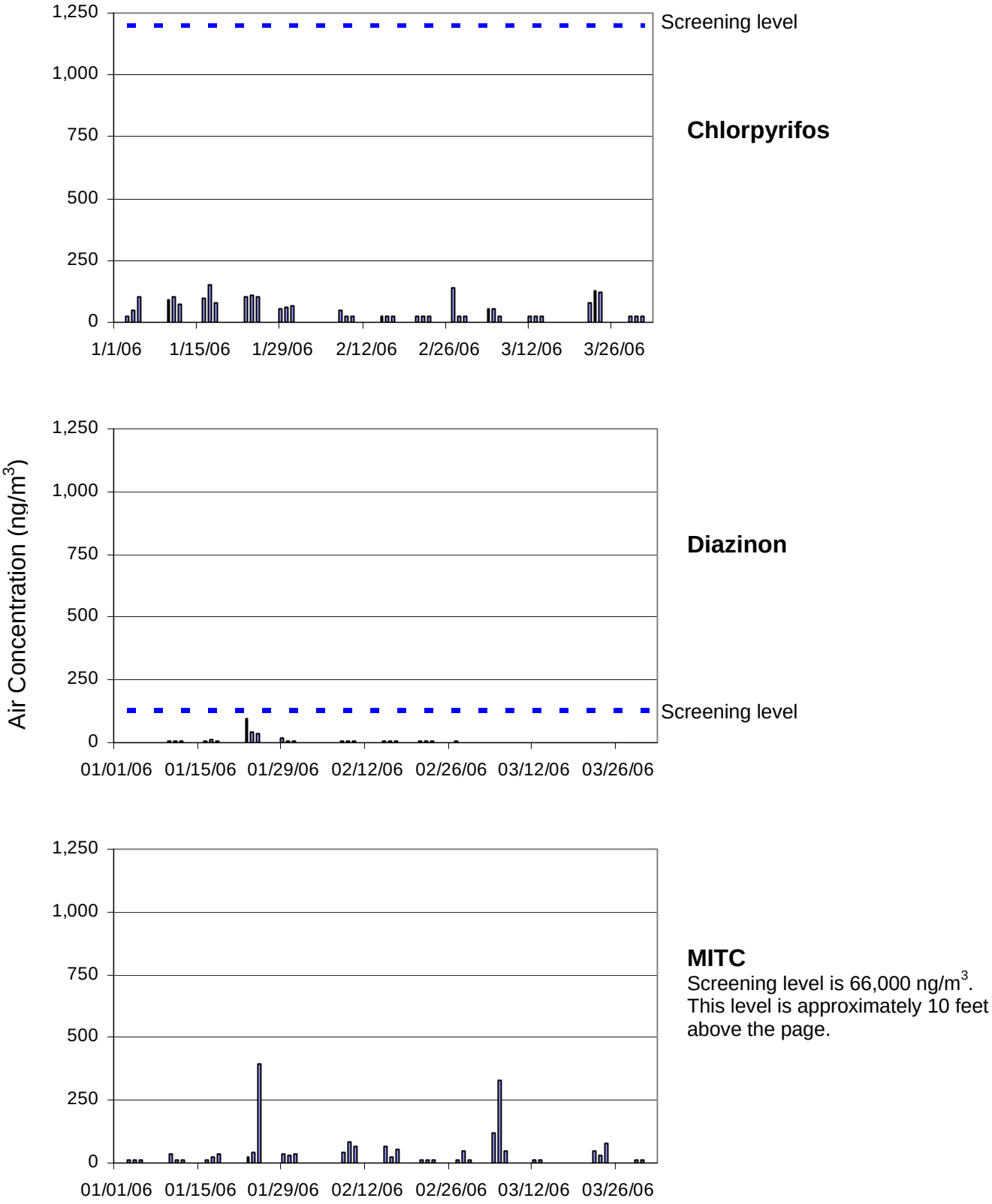


Figure 3. Highest two-week average (subchronic) concentrations detected. Concentrations are presented as rolling or moving averages (i.e. average of weeks 1 and 2, average of weeks 2 and 3, etc.) Three locations were monitored on three consecutive days each week. Each bar shows the highest concentration for that two-week period among the three monitoring locations.

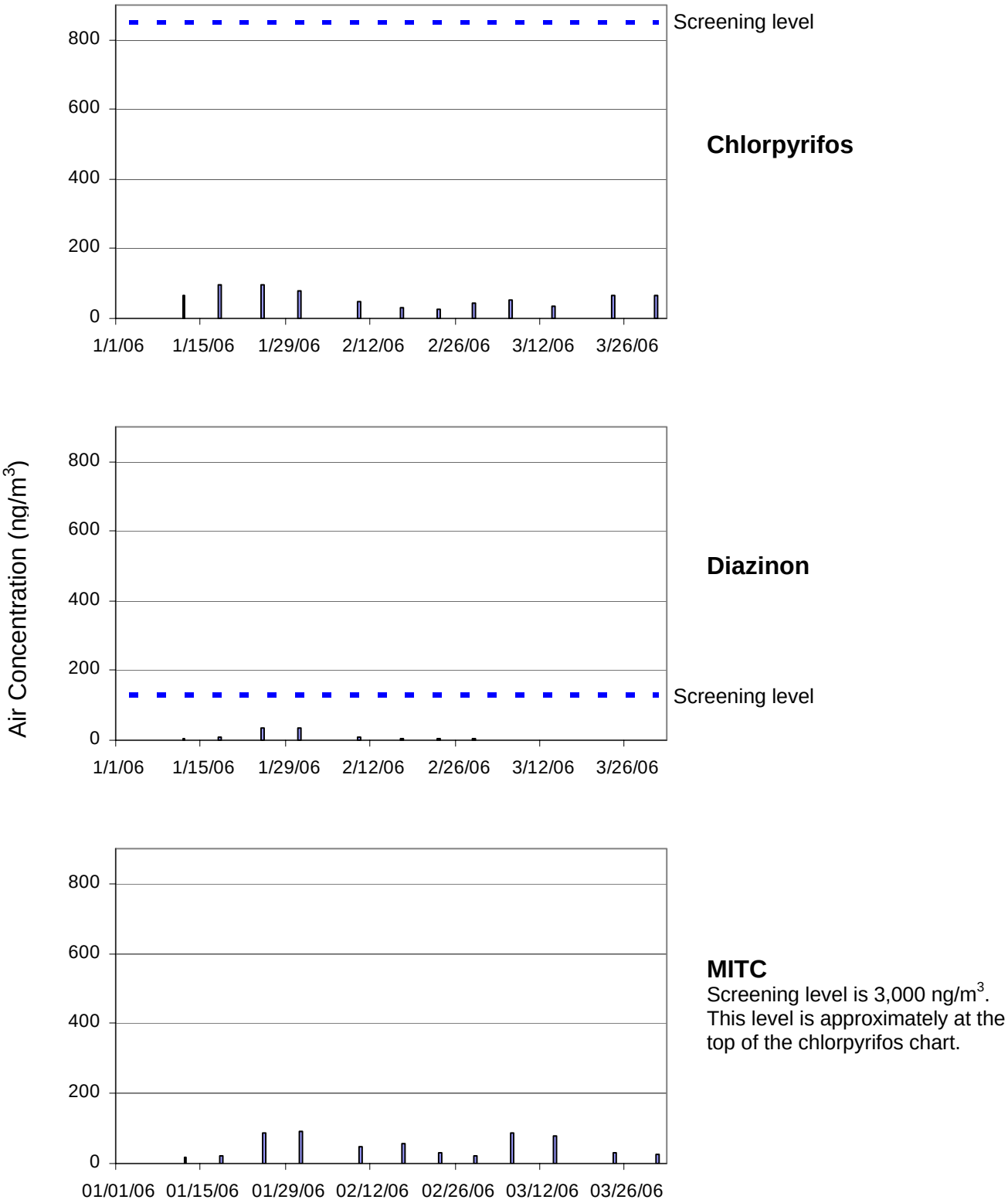


Figure 4. Air concentrations by location, as of March 31, 2006.

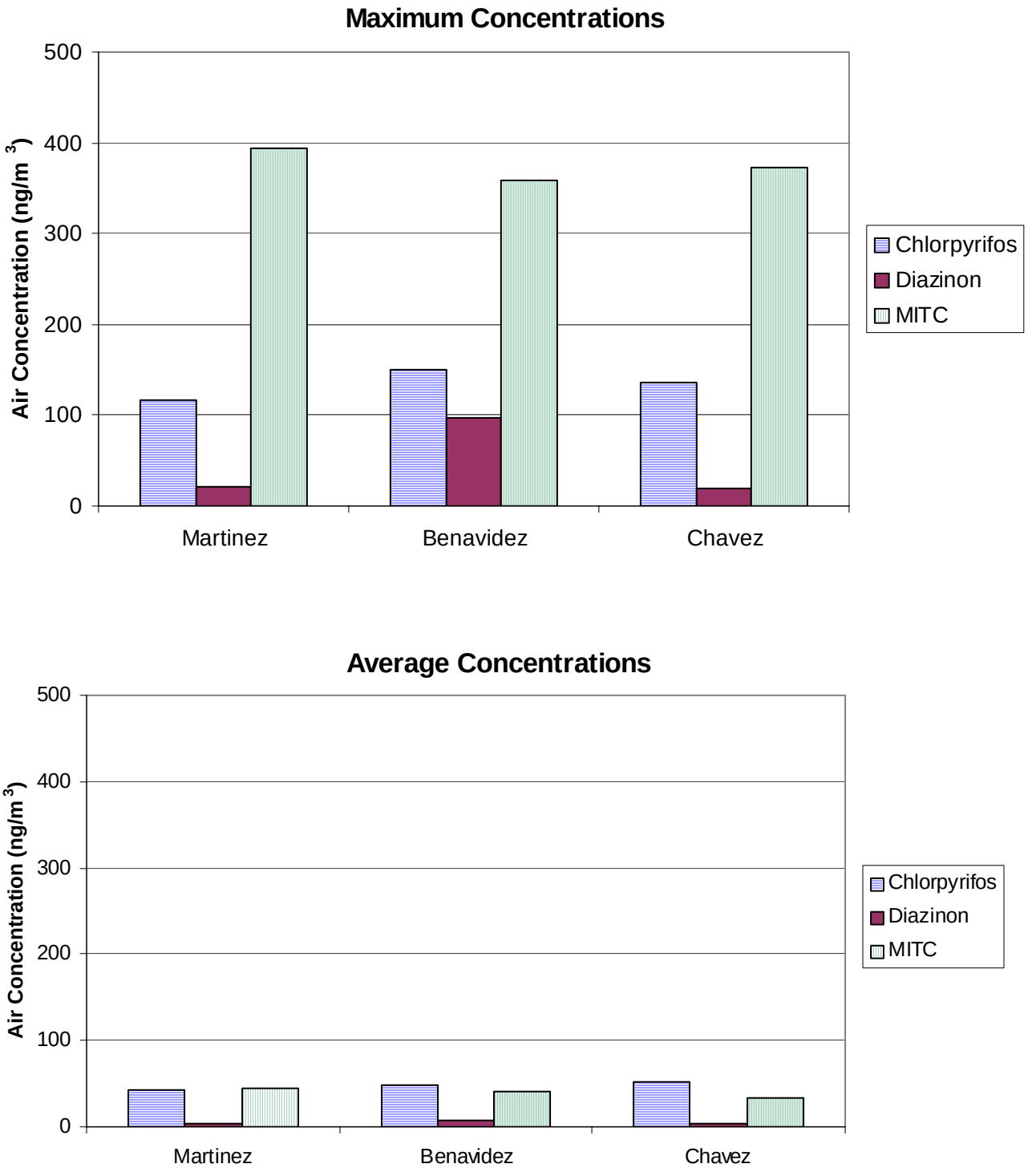
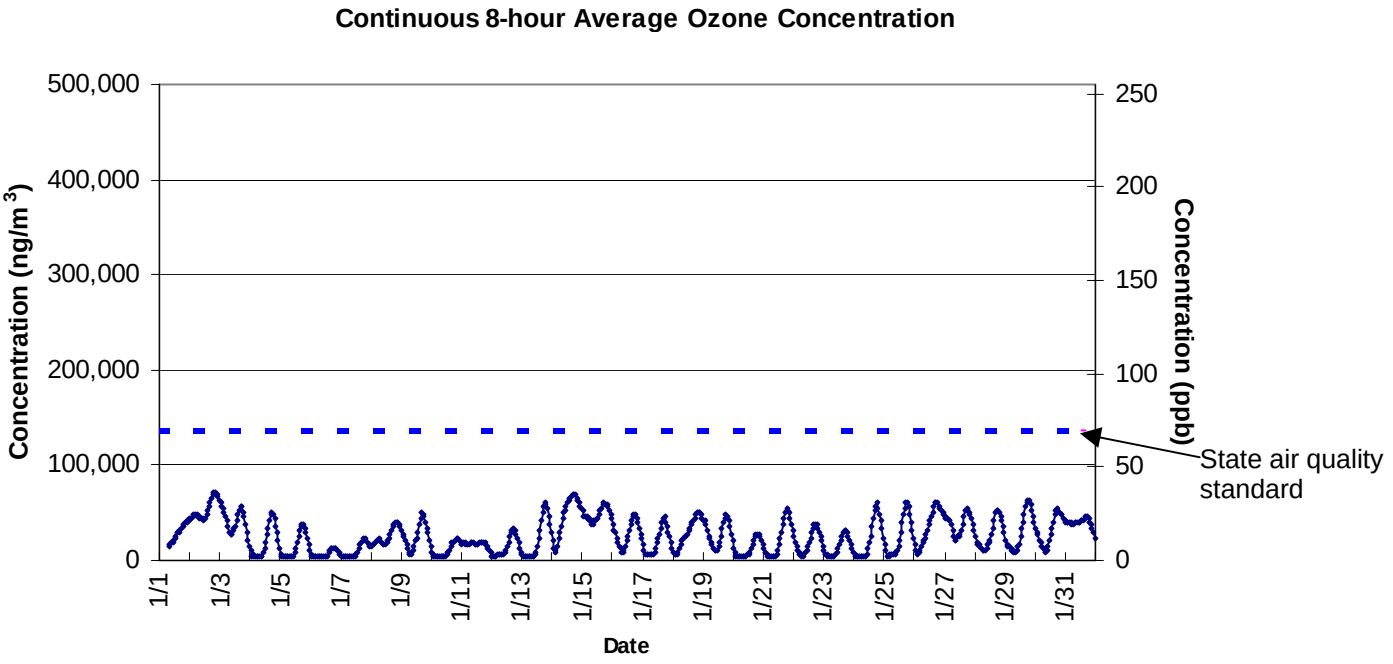


Figure 5. Concentrations of criteria air pollutants at the Parlier monitoring station, January 2006. Concentrations in ng/m^3 are shown on the left vertical axis. Concentrations in ppb are shown on the right vertical axis. Data for particulate matter is not yet available.



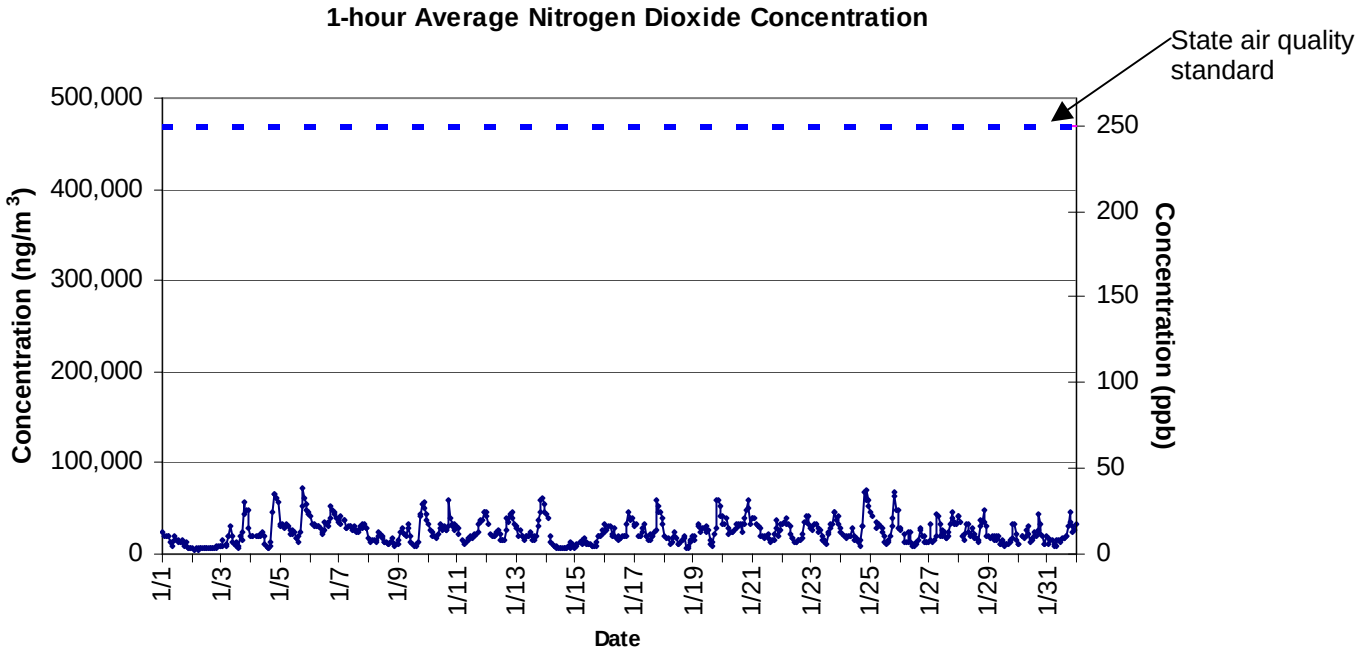
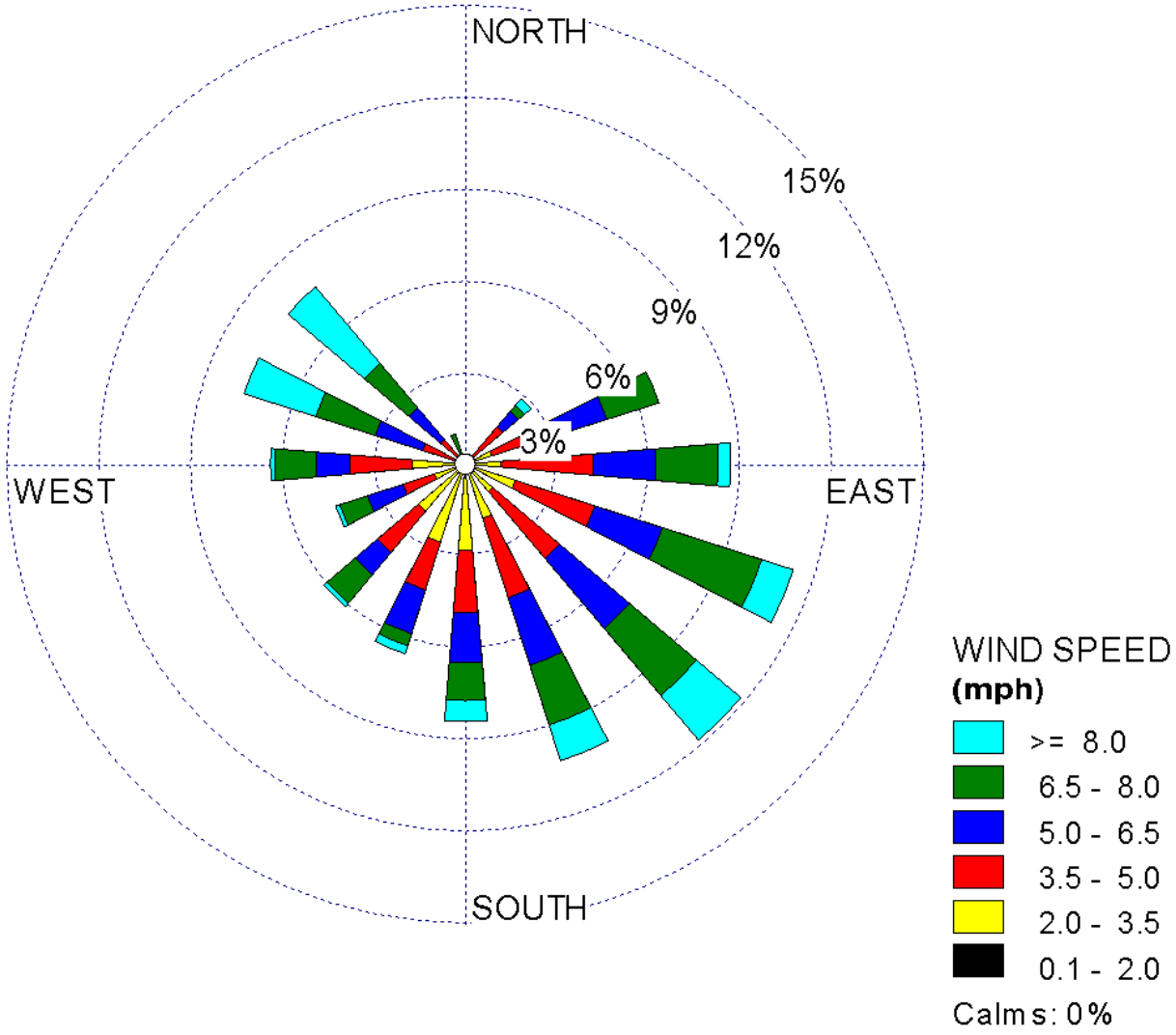


Figure 6. Windrose showing percentage of time for each direction the wind is coming from, and wind speed at the Parlier monitoring station, January 2006.



APPENDIX 1

Results for Each Sample

Pages 22 – 25: Data for DPR MITC samples
Pages 26 – 30: Data for DPR multiple pesticide samples
Page 31: Data for ARB VOC samples

Raw data for DPR MITC samples

Sample Number	Location Code	Interval #	Machine Number	Date Start	Time Start	Date End	Time End	Flow On (ml/min)	Flow Off (ml/min)	Flow Avg	Run Time (min)	Concentration		Comments
												ug/sample total	total (ng/m3)	
116	BEN	1	628	1/3/2006	10:53	1/4/2006	9:41	1571	1588	1579.5	1368	ND	ND	
109	CHA	1	301	1/3/2006	11:30	1/4/2006	10:29	1525	1570	1547.5	1379	ND	ND	
112	MAR	1	349	1/3/2006	9:17	1/4/2006	8:57	1533	1513	1523	1419	Trace	Trace	*
100	BEN	2	280	1/4/2006	9:54	1/4/2006	9:43	1525	1595	1560	1430	Trace	Trace	*
107	CHA	2	301	1/4/2006	10:38	1/5/2006	10:20	1526	1557	1541.5	1423	Trace	Trace	*
104	MAR	2	349	1/4/2006	9:03	1/5/2006	9:06	1481	1491	1486	1442	Trace	Trace	*
120	BEN	3	628	1/5/2006	9:53	1/6/2006	9:25	1522	1592	1557	1411	Trace	Trace	*
105	CHA	3	301	1/5/2006	10:26	1/6/2006	9:51	1529	1565	1547	1404	Trace	Trace	*
121	MAR	3	349	1/5/2006	9:16	1/6/2006	9:02	1509	1559	1534	1426	Trace	Trace	*
125	BEN	1	628	1/10/2006	9:44	1/11/2006	9:35	1532	1542	1537	1430	0.0723	32.89	*
126	CHA	1	301	1/10/2006	10:28	1/11/2006	10:09	1486	1533	1509.5	1422	0.057	26.55	*
103	MAR	1	349	1/10/2006	9:02	1/11/2006	8:50	1576	1558	1567	1428	Trace	Trace	
168	BEN	2	280	1/11/2006	9:38	1/12/2006	9:37	1515	1589	1552	1439	Trace	Trace	*
169	CHA	2	214	1/11/2006	10:13	1/12/2006	10:19	1494	1574	1534	1445	Trace	Trace	*
117	MAR	2	349	1/11/2006	8:58	1/12/2006	8:41	1495	1602	1548.5	1423	Trace	Trace	*
119	BEN	3	628	1/12/2006	9:42	1/13/2006	9:20	1555	1591	1573	1417	Trace	Trace	*
170	CHA	3	214	1/12/2006	10:24	1/13/2006	10:10	1543	1606	1574.5	1428	Trace	Trace	*
113	MAR	3	349	1/12/2006	8:47	1/13/2006	8:53	1518	1518	1518	1446	Trace	Trace	
179	BEN	1	628	1/16/2006	8:50	1/17/2006	8:52	1533	1570	1551.5	1442	Trace	Trace	
167	CHA	1	301	1/16/2006	9:18	1/17/2006	9:38	1513	1556	1534.5	1459	Trace	Trace	
151	MAR	1	587	1/16/2006	8:22	1/17/2006	8:16	1480	1490	1485	1434	Trace	Trace	
157	BEN	2	628	1/17/2006	8:57	1/18/2006	8:59	1533	1570	1551.5	1442	0.0572	25.57	*
165	CHA	2	301	1/17/2006	9:40	1/18/2006	9:39	1536	1538	1537	1438	ND	ND	
161	MAR	2	587	1/17/2006	8:23	1/18/2006	8:26	1511	1587	1549	1444	0.0518	23.16	*
153	BEN	3	317	1/18/2006	9:10	1/19/2006	8:43	1505	1491	1498	1413	0.0689	32.55	*
146	CHA	3	301	1/18/2006	9:45	1/19/2006	9:14	1502	1508	1505	1409	0.0710	33.48	*
177	MAR	3	587	1/18/2006	8:31	1/19/2006	8:20	1512	1520	1516	1429	0.0790	36.47	
218	BEN	1	628	1/23/2006	8:59	1/24/2006	8:50	1534	1526	1530	1432	0.0548	25.01	
173	CHA	1	303	1/23/2006	9:23	1/24/2006	9:21	1489	1516	1502.5	1436	0.0534	24.75	*

Raw data for DPR MITC samples

Sample Number	Location Code	Interval #	Machine Number	Date Start	Time Start	Date End	Time End	Flow On (ml/min)	Flow Off (ml/min)	Flow Avg	Run Time (min)	Concentration		Comments
												ug/sample total	total (ng/m3)	
210	MAR	1	587	1/23/2006	8:33	1/24/2006	8:23	1542	1527	1534.5	1431	0.0579	26.37	
214	BEN	2	628	1/24/2006	8:54	1/25/2006	9:00	1492	1546	1519	1446	0.0948	43.16	
162	CHA	2	303	1/24/2006	9:27	1/25/2006	9:33	1467	1552	1509.5	1446	0.0849	38.90	
219	MAR	2	587	1/24/2006	8:25	1/25/2006	8:34	1487	1546	1516.5	1448	0.0895	40.76	
139	BEN	3	628	1/25/2006	9:06	1/26/2006	8:40	1516	1590	1553	1415	0.788	358.6	
144	CHA	3	303	1/25/2006	9:37	1/26/2006	9:16	1537	1577	1557	1420	0.826	373.6	
133	MAR	3	349	1/25/2006	8:37	1/26/2006	8:22	1513	1578	1545.5	1425	0.867	393.7	
132	BEN	1	1628	1/29/2006	8:52	1/30/2006	8:53	1554	1586	1570	1441	0.0743	32.84	
135	CHA	1	301	1/29/2006	9:11	1/30/2006	9:23	1508	1558	1533	1452	0.0727	32.66	
155	MAR	1	587	1/29/2006	8:31	1/30/2006	8:20	1570	1577	1573.5	1429	0.0767	34.11	
136	BEN	2	317	1/30/2006	8:58	1/31/2006	8:50	1526	1547	1536.5	1432	0.0641	29.13	
134	CHA	2	301	1/30/2006	9:27	1/31/2006	9:19	1519	1524	1521.5	1433	0.0619	28.39	
166	MAR	2	587	1/30/2006	8:25	1/31/2006	8:24	1556	1553	1554.5	1439	0.0648	28.97	
201	BEN	3	317	1/31/2006	8:57	2/1/2006	8:37	1500	1574	1537	1420	0.0675	30.93	
207	CHA	3	301	1/31/2006	9:24	2/1/2006	9:02	1495	1545	1520	1419	0.0708	32.83	
200	MAR	3	587	1/31/2006	8:28	2/1/2006	8:16	1544	1579	1561.5	1429	0.0738	33.07	
230	BEN	1	317	2/8/2006	8:41	2/9/2006	8:51	1547	1560	1553.5	1451	0.0928	41.17	
222	CHA	1	303	2/8/2006	9:08	2/9/2006	9:23	1489	1518	1503.5	1454	Trace	Trace	
208	MAR	1	349	2/8/2006	8:13	2/9/2006	8:17	1501	1467	1484	1444	0.0958	44.71	
227	BEN	2	628	2/9/2006	8:55	2/10/2006	8:45	1503	1560	1531.5	1431	0.175	79.85	
220	CHA	2	303	2/9/2006	9:27	2/10/2006	9:15	1533	1572	1552.5	1429	0.175	78.88	
229	MAR	2	587	2/9/2006	8:27	2/10/2006	8:17	1530	1520	1525	1429	0.182	83.52	
183	BEN	3	628	2/10/2006	8:50	2/11/2006	8:29	1492	1518	1505	1419	0.134	62.75	
184	CHA	3	301	2/10/2006	9:23	2/11/2006	9:14	1522	1529	1525.5	1436	0.123	56.15	
187	MAR	3	349	2/10/2006	8:23	2/11/2006	8:10	1500	1521	1510.5	1427	0.137	63.56	
234	BEN	1	628	2/15/2006	8:55	2/16/2006	8:51	1526	1541	1533.5	1436	0.0677	30.74	
233	CHA	1	85	2/15/2006	9:31	2/16/2006	9:22	1547	1518	1532.5	1431	Trace	Trace	
242	MAR	1	587	2/15/2006	8:28	2/16/2006	8:22	1472	1498	1485	1434	0.139	65.27	
237	BEN	2	203	2/16/2006	8:55	2/17/2006	8:49	1523	1510	1516.5	1434	Trace	Trace	
235	CHA	2	269	2/16/2006	9:28	2/17/2006	9:29	1536	1542	1539	1443	Trace	Trace	

Raw data for DPR MITC samples

Sample Number	Location Code	Interval #	Machine Number	Date Start	Time Start	Date End	Time End	Flow On (ml/min)	Flow Off (ml/min)	Flow Avg	Run Time (min)	Concentration		Comments
												ug/sample total	total (ng/m3)	
236	MAR	2	365	2/16/2006	8:27	2/17/2006	8:18	1524	1536	1530	1433	0.0522	23.81	
194	BEN	3	278	2/17/2006	8:53	2/18/2006	8:25	1526	1587	1556.5	1412	0.102	46.41	
182	CHA	3	269	2/17/2006	9:34	2/18/2006	8:55	1527	1509	1518	1401	0.113	53.13	
188	MAR	3	650	2/17/2006	8:22	2/18/2006	8:08	1507	1551	1529	1425	0.105	48.19	
253	BEN	1	278	2/21/2006	8:45	2/22/2006	8:45	1527	1580	1553.5	1441	Trace	Trace	
244	CHA	1	85	2/21/2006	9:25	2/22/2006	9:15	1539	1573	1556	1430	Trace	Trace	
255	MAR	1	650	2/21/2006	8:17	2/22/2006	8:19	1533	1512	1522.5	1443	Trace	Trace	
254	BEN	2	203	2/22/2006	8:51	2/23/2006	8:53	1520	1597	1558.5	1443	Trace	Trace	
273	CHA	2	85	2/22/2006	9:19	2/23/2006	9:21	1535	1598	1566.5	1442	Trace	Trace	
267	MAR	2	365	2/22/2006	8:22	2/23/2006	8:23	1473	1482	1477.5	1441	Trace	Trace	
198	BEN	3	278	2/23/2006	8:52	2/24/2006	8:42	1509	1517	1513	1426	Trace	Trace	
191	CHA	3	85	2/23/2006	9:25	2/24/2006	9:04	1478	1475	1476.5	1420	Trace	Trace	
190	MAR	3	365	2/23/2006	8:29	2/24/2006	8:23	1504	1494	1499	1435	Trace	Trace	
186	BEN	1	278	2/27/2006	8:51	2/28/2006	8:48	1479	1559	1519	1437	Trace	Trace	
263	CHA	1	85	2/27/2006	9:13	2/28/2006	9:30	1492	1492	1492	1456	Trace	Trace	
262	MAR	1	650	2/27/2006	8:23	2/28/2006	8:17	1500	1545	1522.5	1435	Trace	Trace	
248	BEN	2	203	2/28/2006	8:56	2/29/06	8:50	1523	1558	1540.5	1431	0.0778	35.29	
274	CHA	2	301	2/28/2006	9:35	2/29/06	9:26	1511	1498	1504.5	1431	Trace	Trace	
276	MAR	2	650	2/28/2006	8:22	2/29/06	8:19	1508	1543	1525.5	1437	0.108	49.27	
193	BEN	3	278	3/1/2006	8:52	3/2/2006	8:42	1507	1504	1505.5	1430	Trace	Trace	
269	CHA	3	301	3/1/2006	9:29	3/2/2006	9:19	1512	1524	1518	1430	Trace	Trace	
264	MAR	3	365	3/1/2006	8:25	3/2/2006	8:15	1517	1523	1520	1430	Trace	Trace	
308	BEN	1	278	3/5/2006	8:41	3/6/2006	8:54	1521	1547	1534	1453	0.271	121.6	
303	CHA	1	58	3/5/2006	9:04	3/6/2006	9:21	1510	1506	1508	1457	0.255	116.1	
291	MAR	1	365	3/5/2006	8:17	3/6/2006	8:24	1510	1534	1522	1447	0.169	76.74	
302	BEN	2	203	3/6/2006	9:00	3/7/2006	8:36	1514	1564	1539	1417	0.339	155.5	*
300	CHA	2	85	3/6/2006	9:25	3/7/2006	9:14	1503	1499	1501	1429	ND	ND	
322	MAR	2	650	3/6/2006	8:29	3/7/2006	8:10	1499	1578	1538.5	1421	0.718	328.4	*
321	BEN	3	273	3/7/2006	8:40	3/8/2006	8:32	1514	1499	1506.5	1432	0.0766	35.51	*
293	CHA	3	301	3/7/2006	9:16	3/8/2006	9:06	1534	1530	1532	1430	0.0805	36.75	*

Raw data for DPR MITC samples

Sample Number	Location Code	Interval #	Machine Number	Date Start	Time Start	Date End	Time End	Flow On (ml/min)	Flow Off (ml/min)	Flow Avg	Run Time (min)	Concentration		Comments
												ug/sample total	total (ng/m3)	
298	MAR	3	365	3/7/2006	8:14	3/8/2006	8:15	1531	1502	1516.5	1441	0.102	46.68	
275	BEN	1	203	3/12/2006	8:55	3/13/2006	8:43	1501	1532	1516.5	1428	Trace	Trace	
309	CHA	1	85	3/12/2006	9:18	3/13/2006	9:10	1518	1483	1500.5	1432	Trace	Trace	
246	MAR	1	650	3/12/2006	8:20	3/13/2006	8:12	1531	1547	1539	1433	Trace	Trace	
279	BEN	2	203	3/13/2006	8:46	3/13/2006	8:42	1523	1547	1535	1436	Trace	Trace	
282	CHA	2	85	3/13/2006	9:12	3/14/2006	9:05	1485	1460	1472.5	1433	Trace	Trace	
258	MAR	2	650	3/13/2006	8:16	3/14/2006	8:09	1495	1564	1529.5	1434	Trace	Trace	
314	BEN	3	203	3/14/2006	8:45	3/15/2006	8:34	1523	1544	1533.5	1430	ND	ND	
249	CHA	3	301	3/14/2006	9:08	3/15/2006	8:57	1502	1480	1491	1430	ND	ND	
315	MAR	3	365	3/14/2006	8:12	3/15/2006	8:17	1517	1506	1511.5	1446	ND	ND	
290	BEN	1	203	3/22/2006	8:48	3/23/2006	8:59	1503	1584	1543.5	1452	0.086	38.37	
329	CHA	1	85	3/22/2006	9:17	3/23/2006	9:25	1493	1490	1491.5	1448	0.099	45.61	
313	MAR	1	650	3/22/2006	8:25	3/23/2006	8:25	1488	1564	1526	1440	Trace	Trace	
301	BEN	2	278	3/23/2006	9:02	3/23/2006	8:49	1484	1565	1524.5	1427	0.0589	27.07	
304	CHA	2	301	3/23/2006	9:28	3/24/2006	9:19	1517	1520	1518.5	1432	0.0560	25.75	
320	MAR	2	349	3/23/2006	8:29	3/24/2006	8:17	1542	1504	1523	1427	Trace	Trace	
352	BEN	3	203	3/24/2006	8:54	3/25/2006	8:39	1540	1506	1523	1426	0.166	76.43	
379	CHA	3	301	3/24/2006	9:24	3/25/2006	9:12	1501	1506	1503.5	1423	Trace	Trace	
367	MAR	3	349	3/24/2006	8:21	3/25/2006	8:12	1524	1460	1492	1432	0.0512	23.96	
327	BEN	1	203	3/29/2006	8:45	3/30/2006	8:51	1500	1568	1534	1446	ND	ND	
340	CHA	1	301	3/29/2006	9:07	3/30/2006	9:24	1482	1555	1518.5	1458	ND	ND	
380	MAR	1	650	3/29/2006	8:20	3/30/2006	8:15	1503	1530	1516.5	1435	Trace	Trace	
287	BEN	2	203	3/30/2006	8:55	3/31/2006	8:55	1537	1520	1528.5	1440	Trace	Trace	
343	CHA	2	85	3/30/2006	9:29	3/31/2006	9:23	1515	1518	1516.5	1435	Trace	Trace	
347	MAR	2	650	3/30/2006	8:20	3/31/2006	8:26	1535	1539	1537	1437	Trace	Trace	
348	BEN	3	203	3/31/2006	9:00	4/1/2006	9:01	1489	1571	1530	1441	ND	ND	
353	CHA	3	301	3/31/2006	9:28	4/1/2006	9:23	1486	1567	1526.5	1435	ND	ND	
350	MAR	3	349	3/31/2006	8:31	4/1/2006	8:21	1524	1551	1537.5	1430	ND	ND	

Before the extraction, water condensation was observed on the inner wall of the charcoal tube.

Raw data for DPR multiple pesticide samples. Only pesticides with at least one detectable sample are shown.

Sample Number	Location Code	Interval Number	Start Date	End Date	Time On	Time Off	Flow On (L/min)	Flow Off (L/min)	Average Flow (L/min)	Run Time (min)	Machine ID	Concentration (ng/m3)						
												Trifluralin	Chlorothalonil	Chlorpyrifos	Simazine	Diazinon OA	Chlorpyrifos OA	Diazinon
613	BEN	1	1/3/2006	1/4/2006	10:46	9:35	15.59	14.73	15.16	1366	A10	nd	nd	trace	nd	nd	nd	nd
610	CHA	1	1/3/2006	1/4/2006	11:19	10:26	15.3	14.16	14.73	1384	A6	nd	nd	trace	nd	nd	nd	nd
615	MAR	1	1/3/2006	1/4/2006	9:17	8:53	14.86	15.54	15.20	1376	A15	nd	nd	trace	nd	nd	nd	nd
616	BEN	2	1/4/2006	1/5/2006	9:50	9:43	15.31	15.69	15.50	1437	A8	nd	nd	48.5	nd	nd	nd	nd
604	CHA	2	1/4/2006	1/5/2006	10:32	10:20	15.09	14.89	14.99	1428	A13	nd	nd	trace	nd	nd	nd	nd
617	MAR	2	1/4/2006	1/5/2006	9:05	9:06	14.89	14.56	14.73	1441	A15	nd	nd	trace	nd	nd	nd	nd
601	BEN	3	1/5/2006	1/6/2006	9:53	9:25	14.85	15	14.93	1412	A10	nd	nd	66.4	nd	nd	nd	nd
602	CHA	3	1/5/2006	1/6/2006	10:26	9:51	14.75	14.8	14.78	1404	A13	nd	nd	82.0	nd	nd	nd	nd
606	MAR	3	1/5/2006	1/6/2006	9:16	9:02	15.24	15.15	15.20	1426	A15	nd	nd	103.4	nd	nd	trace	nd
580	BEN	1	1/10/2006	1/11/2006	9:44	9:35	15.47	14.42	14.95	1430	A10	nd	nd	93.6	nd	nd	trace	trace
585	CHA	1	1/10/2006	1/11/2006	10:28	10:09	14.88	18.35*	16.62	1422	A6	trace	nd	74.5	nd	nd	trace	trace
581	MAR	1	1/10/2006	1/11/2006	9:02	8:50	15.06	9.8*	12.43	1428	A15	nd	nd	85.1	nd	nd	trace	trace
588	BEN	2	1/11/2006	1/12/2006	9:38	9:37	15.17	15.52	15.35	1439	A8	nd	nd	97.8	nd	nd	trace	trace
587	CHA	2	1/11/2006	1/12/2006	10:13	10:19	15.02	15.31	15.17	1446	A13	nd	nd	104.4	nd	nd	trace	trace
584	MAR	2	1/11/2006	1/12/2006	8:58	8:41	15.19	13.79	14.49	1423	A15	nd	nd	trace	nd	nd	nd	nd
625	BEN	3	1/12/2006	1/13/2006	9:42	9:20	14.93	14.77	14.85	1417	A10	nd	nd	69.9	nd	nd	nd	trace
621	CHA	3	1/12/2006	1/13/2006	10:24	10:10	15.14	13.02	14.08	1428	A14	nd	nd	74.1	nd	nd	nd	trace
624	MAR	3	1/12/2006	1/13/2006	8:47	8:53	14.57	14.83	14.70	1446	A15	nd	nd	64.9	nd	nd	nd	trace
634	BEN	1	1/16/2006	1/17/2006	8:50	8:52	15.12	13.78	14.45	1442	A10	nd	nd	96.5	nd	nd	trace	trace
620	CHA	1	1/16/2006	1/17/2006	9:18	9:35	15.18	17.19	16.19	1457	A13	nd	nd	97.5	nd	nd	trace	trace
638	MAR	1	1/16/2006	1/17/2006	8:22	8:16	15.5	14.18	14.84	1434	A9	nd	nd	90.2	nd	nd	trace	trace
529	BEN	2	1/17/2006	1/18/2006	8:57	8:59	15.2	15.39	15.30	1442	A8	nd	nd	150.1	nd	trace	trace	14.3
632	CHA	2	1/17/2006	1/18/2006	9:37	9:39	15.05	14.9	14.98	1438	A14	nd	nd	135.6	nd	trace	trace	13.5
525	MAR	2	1/17/2006	1/18/2006	8:23	8:26	14.84	15.06	14.95	1444	A9	nd	nd	116.7	nd	nd	trace	trace
522	BEN	3	1/18/2006	1/19/2006	9:10	8:43	15.27	15.11	15.19	1413	A8	nd	nd	76.9	nd	nd	trace	trace

Raw data for DPR multiple pesticide samples. Only pesticides with at least one detectable sample are shown.

Sample Number	Location Code	Interval Number	Start Date	End Date	Time On	Time Off	Flow On (L/min)	Flow Off (L/min)	Average Flow (L/min)	Run Time (min)	Machine ID	Concentration (ng/m3)						
												Trifluralin	Chlorothalonil	Chlorpyrifos	Simazine	Diazinon OA	Chlorpyrifos OA	Diazinon
523	CHA	3	1/18/2006	1/19/2006	9:45	9:14	15.14	14.73	14.94	1409	A13	nd	nd	68.0	nd	nd	trace	trace
636	MAR	3	1/18/2006	1/19/2006	8:31	8:20	14.94	14.7	14.82	1429	A9	nd	nd	77.0	nd	nd	trace	trace
536	BEN	1	1/23/2006	1/24/2006	8:59	8:50	15.09	13.58	14.335	1432	A5	nd	nd	71.1	nd	trace	nd	97.9
537	CHA	1	1/23/2006	1/24/2006	9:23	9:21	15.05	17.19	16.12	1436	A13	nd	nd	102.0	nd	nd	nd	10.8
533	MAR	1	1/23/2006	1/24/2006	8:33	8:23	15.02	13.87	14.445	1431	A9	nd	nd	87.6	nd	nd	nd	trace
539	BEN	2	1/24/2006	1/25/2006	8:54	9:00	14.88	14.94	14.91	1446	A5	nd	nd	80.7	nd	trace	trace	42.9
555	CHA	2	1/24/2006	1/25/2006	9:27	9:33	15.16	14.85	15.005	1446	A14	nd	nd	74.7	nd	trace	trace	18.9
530	MAR	2	1/24/2006	1/25/2006	8:25	8:34	14.94	14.55	14.745	1448	A15	nd	nd	111.5	nd	trace	trace	20.7
557	BEN	3	1/25/2006	1/26/2006	9:08	8:40	15.14	14.8	14.97	1413	A5	trace	nd	92.7	nd	trace	trace	35.0
551	CHA	3	1/25/2006	1/26/2006	9:37	9:16	15.05	14.77	14.91	1420	A14	trace	nd	98.7	nd	trace	trace	17.3
556	MAR	3	1/25/2006	1/26/2006	8:37	8:22	15.34	15.03	15.185	1425	A9	trace	nd	103.1	nd	trace	trace	18.7
506	BEN	1	1/29/2006	1/30/2006	8:52	8:53	16.40	14.8	15.6	1441	A5	nd	nd	45.4	nd	trace	nd	18.5
500	CHA	1	1/29/2006	1/30/2006	9:11	9:23	14.68	15.66	15.17	1452	A13	nd	nd	57.2	nd	nd	nd	trace
554	MAR	1	1/29/2006	1/30/2006	8:31	8:20	16.69	14.88	15.785	1429	A9	nd	nd	49.2	nd	nd	nd	trace
503	BEN	2	1/30/2006	1/31/2006	8:58	8:50	15.02	14.97	14.995	1432	A5	nd	nd	59.1	nd	nd	nd	trace
508	CHA	2	1/30/2006	1/31/2006	9:27	9:19	15.04	15.18	15.11	1433	A14	nd	nd	63.3	nd	nd	nd	trace
507	MAR	2	1/30/2006	1/31/2006	8:25	8:24	15.26	14.97	15.115	1439	A15	nd	nd	56.6	trace	nd	trace	trace
593	BEN	3	1/31/2006	2/1/2006	8:57	8:57	15.07	14.83	14.95	1420	A5	nd	nd	54.6	nd	nd	nd	trace
597	CHA	3	1/31/2006	2/1/2006	9:24	9:02	15.21	15.17	15.19	1419	A13	nd	nd	65.9	nd	nd	nd	trace
591	MAR	3	1/31/2006	2/1/2006	8:28	8:16	15.35	15.05	15.20	1429	A9	nd	nd	50.6	nd	nd	nd	trace
594	BEN	1	2/8/2006	2/9/2006	8:41	8:51	15.02	13.95	14.49	1451	A5	nd	nd	48.5	trace	nd	nd	trace
562	CHA	1	2/8/2006	2/9/2006	9:08	9:23	15.5	14.52	15.01	1454	A13	nd	nd	48.1	trace	nd	trace	trace
592	MAR	1	2/8/2006	2/9/2006	8:13	8:17	15.25	14.05	14.65	1444	A9	nd	nd	trace	trace	nd	trace	trace
566	BEN	2	2/9/2006	2/10/2006	8:55	8:45	15.09	15.04	15.07	1431	A10	nd	nd	trace	trace	nd	trace	trace
514	CHA	2	2/9/2006	2/10/2006	9:27	9:15	15.35	15.1	15.23	1429	A14	nd	nd	trace	trace	nd	trace	trace
567	MAR	2	2/9/2006	2/10/2006	8:27	8:17	14.94	14.07	14.51	1429	A15	nd	nd	trace	trace	nd	trace	trace

Raw data for DPR multiple pesticide samples. Only pesticides with at least one detectable sample are shown.

Sample Number	Location Code	Interval Number	Start Date	End Date	Time On	Time Off	Flow On (L/min)	Flow Off (L/min)	Average Flow (L/min)	Run Time (min)	Machine ID	Concentration (ng/m3)						
												Trifluralin	Chlorothalonil	Chlorpyrifos	Simazine	Diazinon OA	Chlorpyrifos OA	Diazinon
519	BEN	3	2/10/2006	2/11/2006	8:50	8:29	15.39	14.97	15.18	1419	A10	nd	nd	trace	trace	trace	trace	trace
512	CHA	3	2/10/2006	2/11/2006	9:23	9:14	15.33	14.88	15.11	1436	A14	nd	nd	trace	trace	nd	trace	trace
510	MAR	3	2/10/2006	2/11/2006	8:23	8:10	15.34	15.11	15.23	1427	A9	nd	nd	trace	trace	nd	nd	trace
548	BEN	1	2/15/2006	2/16/2006	8:55	8:51	15.18	13.91	14.55	1436	A10	nd	nd	trace	nd	nd	nd	trace
544	CHA	1	2/15/2006	2/16/2006	9:31	9:22	15.46	12.53	14.00	1431	A14	nd	nd	trace	nd	nd	nd	trace
547	MAR	1	2/15/2006	2/16/2006	8:28	8:22	15.02	13.68	14.35	1434	A9	nd	nd	trace	nd	nd	nd	trace
549	BEN	2	2/16/2006	2/17/2006	8:55	8:49	15.18	15.15	15.17	1434	A5	nd	nd	trace	trace	nd	nd	trace
516	CHA	2	2/16/2006	2/17/2006	9:28	9:29	15.02	14.92	14.97	1443	A14	nd	nd	trace	trace	nd	nd	nd
540	MAR	2	2/16/2006	2/17/2006	8:27	8:18	14.96	15.03	15.00	1431	A15	nd	nd	trace	trace	nd	nd	trace
571	BEN	3	2/17/2006	2/18/2006	8:53	8:25	15.28	15.01	15.15	1412	A5	trace	nd	trace	trace	nd	nd	trace
576	CHA	3	2/17/2006	2/18/2006	9:34	8:55	14.92	15.11	15.02	1401	A13	trace	nd	trace	trace	nd	nd	trace
577	MAR	3	2/17/2006	2/18/2006	8:22	8:08	15.35	15.02	15.19	1425	A15	trace	nd	trace	trace	nd	nd	trace
700	BEN	1	2/21/2006	2/22/2006	8:45	8:45	15.35	14.09	14.72	1441	A5	nd	nd	trace	nd	nd	nd	nd
705	CHA	1	2/21/2006	2/22/2006	9:25	9:15	15.15	13.07	14.11	1430	A2	nd	nd	trace	nd	nd	nd	nd
688	MAR	1	2/21/2006	2/22/2006	8:17	8:19	15.46	14.2	14.83	1443	A9	nd	nd	trace	trace	nd	nd	trace
681	BEN	2	2/22/2006	2/23/2006	8:51	8:53	15.05	14.98	15.02	1443	A5	nd	nd	trace	trace	nd	nd	trace
709	CHA	2	2/22/2006	2/23/2006	9:19	9:21	15.47	15.66	15.57	1442	A2	nd	nd	trace	trace	nd	nd	nd
666	MAR	2	2/22/2006	2/23/2006	8:22	8:23	14.85	14.2	14.53	1441	A15	nd	nd	trace	trace	nd	nd	trace
573	BEN	3	2/23/2006	2/24/2006	8:52	8:42	15.27	14.94	15.11	1426	A5	nd	nd	trace	trace	nd	trace	nd
570	CHA	3	2/23/2006	2/24/2006	9:25	9:04	15.35	15.05	15.20	1420	A2	nd	nd	trace	trace	nd	trace	nd
579	MAR	3	2/23/2006	2/24/2006	8:29	8:23	15.04	14.77	14.91	1435	A9	nd	nd	trace	trace	nd	trace	trace
706	BEN	1	2/27/2006	2/28/2006	8:51	8:48	15.27	14.14	14.71	1437	A5	trace	nd	136.8	trace	nd	trace	trace
693	CHA	1	2/27/2006	2/28/2006	9:13	9:30	15.05	14.72	14.89	1456	A14	trace	nd	trace	trace	nd	nd	trace
674	MAR	1	2/27/2006	2/28/2006	8:23	8:17	15.12	14.03	14.58	1435	A9	trace	nd	trace	trace	nd	nd	trace
682	BEN	2	2/28/2006	3/1/2006	8:56	8:50	14.81	14.75	14.78	1431	A5	nd	nd	trace	nd	nd	nd	nd
672	CHA	2	2/28/2006	3/1/2006	9:35	9:26	15.03	15.03	15.03	1431	A2	nd	nd	trace	nd	nd	nd	nd

Raw data for DPR multiple pesticide samples. Only pesticides with at least one detectable sample are shown.

Sample Number	Location Code	Interval Number	Start Date	End Date	Time On	Time Off	Flow On (L/min)	Flow Off (L/min)	Average Flow (L/min)	Run Time (min)	Machine ID	Concentration (ng/m3)						
												Trifluralin	Chlorothalonil	Chlorpyrifos	Simazine	Diazinon OA	Chlorpyrifos OA	Diazinon
702	MAR	2	2/28/2006	3/1/2006	8:22	8:19	15.11	15.06	15.09	1437	A9	nd	trace	trace	nd	nd	nd	nd
687	BEN	3	3/1/2006	3/2/2006	8:52	8:42	15.37	14.82	15.10	1430	A7	trace	nd	trace	nd	nd	trace	nd
673	CHA	3	3/1/2006	3/2/2006	9:29	9:19	15.16	14.97	15.07	1430	A2	trace	nd	trace	nd	nd	nd	nd
677	MAR	3	3/1/2006	3/2/2006	8:25	8:15	15.26	14.76	15.01	1430	A15	trace	nd	trace	nd	nd	nd	nd
758	BEN	1	3/5/2006	3/6/2006	8:41	8:54	15.04	13.99	14.52	1453	A5	trace	trace	56.9	nd	nd	trace	nd
757	CHA	1	3/5/2006	3/6/2006	9:04	9:21	14.93	13.51	14.22	1457	A2	trace	trace	trace	nd	nd	trace	nd
752	MAR	1	3/5/2006	3/6/2006	8:17	8:24	15.14	14.41	14.78	1447	A9	trace	trace	trace	nd	nd	trace	nd
762	BEN	2	3/6/2006	3/7/2006	9:00	8:36	15.5	15.44	15.47	1417	A5	nd	nd	57.0	nd	nd	nd	nd
742	CHA	2	3/6/2006	3/7/2006	9:25	9:14	15.29	15.25	15.27	1429	A2	nd	nd	trace	nd	nd	nd	nd
675	MAR	2	3/6/2006	3/7/2006	8:29	8:10	15.14	14.75	14.95	1421	A9	nd	trace	trace	nd	nd	nd	nd
701	BEN	3	3/7/2006	3/8/2006	8:40	8:32	15.11	14.68	14.90	1432	A5	nd	nd	trace	nd	nd	nd	nd
685	CHA	3	3/7/2006	3/8/2006	9:16	9:06	15.4	15.08	15.24	1430	A2	nd	trace	trace	nd	nd	nd	nd
698	MAR	3	3/7/2006	3/8/2006	8:14	8:15	15.04	14.74	14.89	1441	A9	nd	trace	trace	nd	nd	nd	nd
707	BEN	1	3/12/2006	3/13/2006	8:55	8:43	14.95	13.61	14.28	1428	A5	nd	nd	trace	nd	nd	nd	nd
763	CHA	1	3/12/2006	3/13/2006	9:18	9:10	15.09	13.12	14.105	1432	A2	nd	nd	trace	nd	nd	nd	nd
755	MAR	1	3/12/2006	3/13/2006	8:20	8:12	15.26	13.91	14.585	1433	A9	nd	trace	trace	nd	nd	nd	nd
751	BEN	2	3/13/2006	3/14/2006	8:46	8:42	15.08	15.05	15.065	1436	A5	nd	trace	trace	nd	nd	nd	nd
746	CHA	2	3/13/2006	3/14/2006	9:12	9:05	15.07	15.11	15.09	1433	A14	nd	trace	trace	nd	nd	nd	nd
744	MAR	2	3/13/2006	3/14/2006	8:16	8:09	15.45	15.37	15.41	1434	A15	nd	nd	trace	nd	nd	nd	nd
722	BEN	3	3/14/2006	3/15/2006	8:45	8:34	15.18	14.94	15.06	1430	A5	nd	trace	trace	nd	nd	nd	nd
725	CHA	3	3/14/2006	3/15/2006	9:08	8:57	15.29	14.87	15.08	1430	A14	nd	trace	trace	nd	nd	nd	nd
750	MAR	3	3/14/2006	3/15/2006	8:12	8:17	15.36	14.54	14.95	1446	A15	nd	trace	trace	nd	nd	nd	nd
729	BEN	1	3/22/2006	3/23/2006	8:48	8:59	14.8	13.63	14.215	1452	A5	nd	trace	trace	nd	nd	nd	nd
732	CHA	1	3/22/2006	3/23/2006	9:17	9:25	15.29	13.45	14.37	1448	A14	nd	trace	81.7	nd	nd	trace	nd
736	MAR	1	3/22/2006	3/23/2006	8:25	8:25	15.43	14.08	14.755	1440	A9	nd	trace	trace	nd	nd	nd	nd
745	BEN	2	3/23/2006	3/24/2006	9:02	8:49	15.25	15.19	15.22	1427	A5	nd	trace	trace	nd	nd	nd	nd

Raw data for DPR multiple pesticide samples. Only pesticides with at least one detectable sample are shown.

Sample Number	Location Code	Interval Number	Start Date	End Date	Time On	Time Off	Flow On (L/min)	Flow Off (L/min)	Average Flow (L/min)	Run Time (min)	Machine ID	Concentration (ng/m3)						
												Trifluralin	Chlorothalonil	Chlorpyrifos	Simazine	Diazinon OA	Chlorpyrifos OA	Diazinon
740	CHA	2	3/23/2006	3/24/2006	9:28	9:19	15.08	15.25	15.165	1432	A2	nd	trace	125.7	nd	nd	trace	nd
723	MAR	2	3/23/2006	3/24/2006	8:29	8:17	15.34	14.94	15.14	1427	A9	nd	trace	trace	nd	nd	nd	nd
770	BEN	3	3/24/2006	3/25/2006	8:54	8:39	15.23	14.96	15.095	1426	A7	trace	trace	trace	nd	nd	trace	nd
811	CHA	3	3/24/2006	3/25/2006	9:24	9:12	15.08	15.1	15.09	1423	A14	trace	trace	121.5	nd	nd	trace	nd
779	MAR	3	3/24/2006	3/25/2006	8:21	8:12	15.16	15.86	15.51	1432	A11	trace	trace	trace	nd	nd	trace	nd
767	BEN	1	3/29/2006	3/30/2006	8:45	8:51	15.19	13.84	14.515	1446	A5	nd	trace	trace	nd	nd	nd	nd
786	CHA	1	3/29/2006	3/30/2006	9:07	9:24	15.05	12.62	13.835	1458	A2	nd	trace	trace	nd	nd	nd	nd
796	MAR	1	3/29/2006	3/30/2006	8:20	8:15	15.07	13.73	14.4	1435	A9	nd	trace	trace	nd	nd	nd	nd
794	BEN	2	3/30/2006	3/31/2006	8:56	8:55	15.1	15.09	15.095	1440	A5	trace	nd	trace	nd	nd	nd	nd
782	CHA	2	3/30/2006	3/31/2006	8:56	8:55	15.1	15.09	15.095	1440	A5	trace	nd	trace	nd	nd	nd	nd
788	MAR	2	3/30/2006	3/31/2006	8:28	8:26	15.02	15.1	15.06	1438	A11	trace	trace	trace	nd	nd	nd	nd
785	BEN	3	3/31/2006	4/1/2006	9:00	9:01	15.22	15.27	15.245	1441	A5	nd	nd	trace	nd	nd	nd	nd
806	CHA	3	3/31/2006	4/1/2006	9:28	9:23	15.26	15.32	15.29	1435	A14	nd	nd	trace	nd	nd	nd	nd
800	MAR	3	3/31/2006	4/1/2006	8:31	8:21	14.96	14.6	14.78	1430	A9	nd	trace	trace	nd	nd	nd	nd

*Flow difference between start and finish times more than 20%.

California Air Resources Board 2006 Toxics Volatile Organic Compounds as of May 15, 2006 monitored in Fresno, CA.
Concentrations are all presented in ppb. Measurements below the detection limit expressed as the negative of the detection limit.

Sampling Location	Volatile Organic Compound	Date						
		1/11/2006	1/13/2006	1/23/2006	1/26/2006	2/4/2006	2/16/2006	2/28/2006
Fresno-1st Street	1,3-Butadiene	0.12			0.07	0.17	0.21	-0.04
	Acetaldehyde		1.8	1.4		0.9	1.5	0.3
	Acetone	3.9			2.4	3.6	2.9	3.2
	Acetonitrile	1.1			-0.3	-0.3	-0.3	-0.3
	Acrolein	0.37			-0.3	-0.3	-0.3	0.47
	Acrylonitrile	-0.3			-0.3	-0.3	-0.3	-0.3
	Benzene	0.52			0.29	0.6	0.76	0.21
	Carbon Disulfide	0.22			0.68	0.6	0.2	0.2
	Carbon Tetrachloride	0.14			0.12	0.13	0.15	0.14
	Chloroform	-0.02			-0.02	0.03	0.03	-0.02
	cis-1,3-Dichloropropene	-0.1			-0.1	-0.1	-0.1	-0.1
	Ethyl Benzene	-0.2			-0.2	-0.2	-0.2	-0.2
	Formaldehyde		2.7	2		1.7	2.6	0.7
	meta/para-Xylene	0.32			-0.2	0.54	0.76	-0.2
	Methyl Bromide	0.05			0.04	0.05	-0.03	-0.03
	Methyl Chloroform	0.02			0.02	0.02	0.02	0.02
	Methyl Ethyl Ketone		0.3	-0.1		0.2	0.2	-0.1
	Methylene Chloride	0.22			0.1	0.17	0.13	-0.1
	ortho-Dichlorobenzene	-0.3			-0.3	-0.3	-0.3	-0.3
	ortho-Xylene	0.12			-0.1	0.16	0.24	-0.1
	para-Dichlorobenzene	-0.3			-0.3	-0.3	-0.3	-0.3
	Perchloroethylene	0.02			0.02	0.03	0.02	-0.01
	Styrene	-0.1			-0.1	-0.1	-0.1	-0.1
	Toluene	0.87			0.38	1.1	1.4	0.26
	trans-1,3-Dichloropropene	-0.1			-0.1	-0.1	-0.1	-0.1
	Trichloroethylene	-0.02			-0.02	-0.02	-0.02	-0.02

California Air Resources Board 2006 Toxics Volatile Organic Compounds as of May 15, 2006 monitored in Parlier, CA.
Concentrations are all presented in ppb. Measurements below the detection limit expressed as the negative of the detection limit

Parlier-Tuolumne St.		1/17/2006	1/23/2006	1/29/2006	2/4/2006	2/10/2006	2/16/2006	2/22/2006
	1,3-Butadiene	0.12	0.1	0.17	0.1	0.15	0.1	0.09
	Acetaldehyde		1.1	1.1	0.9	2.2	1.2	1.1
	Acetone	4.1	3	5.4	3.1	5.1	1.9	3.2
	Acetonitrile	0.38	-0.3	4.8	-0.3	0.4	-0.3	0.35
	Acrolein	0.64	-0.3	1.2	0.33	0.67	-0.3	0.31
	Acrylonitrile	0.36	-0.3	0.44	-0.3	0.41	-0.3	-0.3
	Benzene	0.5	0.44	0.49	0.38	0.57	0.39	0.4
	Carbon Disulfide	0.16	0.28	0.29	0.33	0.52	0.37	0.47
	Carbon Tetrachloride	0.13	0.13	0.13	0.13	0.14	0.12	0.14
	Chloroform	-0.02	0.02	0.02	0.02	0.02	-0.02	-0.02
	cis-1,3-Dichloropropene	-0.1	-0.1	0.2	-0.1	-0.1	-0.1	-0.1
	Ethyl Benzene	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
	Formaldehyde		1.2	1.8	2	3.2	1.7	2.2
	meta/para-Xylene	0.35	-0.2	0.45	0.28	0.73	0.26	0.37
	Methyl Bromide	-0.03	0.11	0.05	0.19	0.25	0.05	-0.03
	Methyl Chloroform	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Methyl Ethyl Ketone		0.1	-0.1	-0.1	0.2	0.1	-0.1
	Methylene Chloride	-0.1	0.13	0.19	-0.1	0.18	-0.1	0.1
	ortho-Dichlorobenzene	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
	ortho-Xylene	0.11	-0.1	0.13	-0.1	0.26	-0.1	0.13
	para-Dichlorobenzene	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
	Perchloroethylene	0.01	0.01	0.03	0.01	0.02	-0.01	-0.01
	Styrene	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
	Toluene	0.89	0.55	0.91	0.59	1.3	0.58	0.84
	trans-1,3-Dichloropropene	-0.1	-0.1	0.17	-0.1	-0.1	-0.1	-0.1
	Trichloroethylene	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02